WHAT IS CLAIMED IS:

1. A coronagraph for detecting reflective bodies external to a light source comprising:

a first mirror for directing a beam of light onto an occulting mask, the first mirror adjustable based on a data from a fiber optic sensor or a second sensor;

an occulting mask for separating the beam into a first and second portion, the occulting mask directing the first portion onto a fiber optic sensor and the second portion onto a Lyot stop, the occulting mask adjustable based on data from the second sensor;

the Lyot stop for separating the second portion of the beam into a third and fourth portion, the Lyot stop directing the third portion of the beam onto the second sensor and the fourth portion of the beam onto a camera for detecting one or more reflective bodies external to a light source.

2. A method for detecting reflective bodies external to a light source comprising:

detecting a first portion of a beam of light at a fiber optic sensor after the beam has passed through an occulting mask;

based on a data from the fiber optic sensor, adjusting a first mirror or an occulting mask;

detecting a second portion of a beam of light at a second sensor after the beam has reflected off of a Lyot Stop;

based on a data from the second sensor, adjusting the first mirror or the occulting mask; and

detecting a third portion of the beam at a camera after the beam has passed through the Lyot Stop, the third portion of the beam comprising light from one or more reflective bodies external to a light source.

3. A coronagraph for detecting reflective bodies external to a light source comprising:

a first mirror for directing a beam of light onto an occulting mask, the first mirror adjustable based on a data from a first sensor or a second sensor;

an occulting mask for separating the beam into a first and second portion, each portion directed to a separate plane, the first portion further directed onto a first sensor and the second portion further directed onto a Lyot stop, the occulting mask adjustable based on data from the second sensor;

the Lyot stop for separating the second portion of the beam into a third and fourth portion, the Lyot stop directing the third portion of the beam onto the second sensor and the fourth portion of the beam onto a camera for detecting one or more reflective bodies external to a light source.

4.The method as recited in claim 1 wherein the first mirror comprises one or more PZT stacks.

5.The method as recited in claim 2 wherein the first mirror comprises one or more PZT stacks.

6.The method as recited in claim 3 wherein the first mirror comprises one or more PZT stacks.

7.The method as recited in claim 1 wherein the occulting mask comprises an entrance formed as a bevel.

8.The method as recited in claim 2 wherein the occulting mask comprises an entrance formed as a bevel.

9.The method as recited in claim 3 wherein the occulting mask comprises an entrance formed as a bevel.

10. The method as recited in claim 1 further comprising a doublet for directing the first portion onto the fiber optic sensor.

11. The method as recited in claim 3 further comprising a doublet for directing the first portion onto the fiber optic sensor.

12. The method as recited in claim 2 further comprising the step of focusing the first beam of light onto the fiber optic sensor via a doublet.

13. The method as recited in claim 1 further comprising a one or more directing mirrors for directing the first portion onto the fiber optic sensor.

14. The method as recited in claim 3 further comprising a one or more directing mirrors for directing the first portion onto the fiber optic sensor.

15. The method as recited in claim 2 further comprising the step of directing the first beam of light onto the fiber optic sensor via a one or more directing mirrors.

16. The method as recited in claim 1 wherein the fiber optic sensor comprises one or more fiber feeds.

17. The method as recited in claim 2 wherein the fiber optic sensor comprises one or more fiber feeds.

18. The method as recited in claim 3 wherein the fiber optic sensor comprises one or more fiber feeds.

19. The method as recited in claim 1 wherein the fiber optic sensor comprises a lenslet.

20. The method as recited in claim 2 wherein the fiber optic sensor comprises a lenslet.

21. The method as recited in claim 3 wherein the fiber optic sensor comprises a lenslet.